UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD PROJECT OFFICE
712 SWIFT BOULEVARD, SUITE 5
RICHLAND, WASHINGTON 99352

January 16, 1998

Geoff Tallent, Chair
Hanford Natural Resource Trustee Council
c/o Melanie Preusser
Bechtel Hanford, Inc.
3350 George Washington Way, MSIN H0-02
Richland, Washington 99352

Re: Hanford Natural Resource Trustee Council letter dated November 14, 1997, regarding the Hanford 1100 Area Superfund Site.

Dear Mr. Tallent:

In your November letter to myself, and Mr. Glenn Goldberg, U.S. Department of Energy (DOE), you identified several areas regarding the Hanford Natural Resource Trustee Council's (The Council's) Pre-Assessment Screen of the Hanford 1100 Area which required clarifying or additional information to complete. Since receiving your letter, I have been working with Mr. Goldberg and Ms. Jena Lewinsohn to gather that information. DOE is providing most of that information under separate cover. There are, however, a few areas where I am in a unique position to provide the clarifying information.

The first area is the potential for contaminated groundwater from the vicinity of the Horn Rapids Landfill to reach the river. During the remedial investigation, a groundwater model was constructed by the U.S. Army Corps of Engineers for DOE. The model was reviewed by the U.S. Geological Survey, at my request. The model predicts that contaminants in the groundwater will not travel past a line of monitoring wells at concentrations exceeding cleanup goals (drinking water standards). The Record of Decision for the 1100 Area states that if the concentrations at the monitoring wells exceed the criteria, further actions will have to be evaluated. Based on the prediction from the model and the continued monitoring, there is a very low potential for groundwater contaminants to reach the river, especially at concentrations of concern. (ERA)

The second area is the elevated concentrations of chromium in a well (699-S41-E12, or MW-3) in the 1100-EM-2 operable unit. The chromium that is of environmental concern is the mobile, hexavalent ion Cr+6. Trivalent chromium, Cr+3, is relatively immobile and does not cause the same harm as Cr+6. There are several reasons why the chromium concentrations in this well have not been of concern. First, this well has a history of problems. It has always had a high level of suspended solids, which results in samples containing particulate soil matter. Basalts at Hanford (one component of the soils) often have elevated chromium concentrations. Second, this well is constructed of stainless steel. Chromium is a component of stainless steel.

Third, the samples which show elevated chromium concentrations were not filtered. Filtered samples are usually considered to better represent mobile, dissolved constituents in comparison to unfiltered
samples which may include particulate or otherwise immobile constituents. When there have been both filtered and unfiltered samples taken at the same time from this well (and others in the 1100 Area), the filtered samples show a markedly lower chromium concentration. In one set of samples, the concentration in the unfiltered sample was 220 μg/l and, in the filtered sample, 3.3 μg/l. In summary, the elevated chromium concentrations have been interpreted as representing the non-toxic Cr+3 as opposed to the toxic Cr+6.

The third area is the identity of an underground storage tank (UST) and whether it had been closed as required in the remedial action plan. In the various project documents, this tank has been referred to as "6652-C 6C", "6652-C", and "6652-C1". These labels all refer to the same tank, located on top of Rattlesnake Mountain, which was closed in accordance with Washington State regulations by pumping out any remaining product and filling the tank with grout.

The fourth area concerned the identification and status of two other USTs. Again, different documents use different names for the same tanks. One report recommends removal of tanks 13E and 13F at the ALE Headquarters. Those tank locations correspond to tanks identified as 6652-HJ and 6652-G. Project documents state that tanks 6652-H and 6652-G were removed. The various labels refer to the same two tanks, which were removed.

If you need further clarification of the above, or find additional data gaps, please do not hesitate to call me at (509) 376-3883.

David R. Einan
1100 Area Project Manager

cc: Glenn Goldberg, DOE
Jena Lewinsohn, DOE